

b₁ image processing and display of the converted image data; and

said display unit displays an image and indication for manipulation of image processing simultaneously, or allows a user to select either a switching mode or a superposition mode.

2. (ONCE AMENDED) An image processing apparatus for a robot which is designed independent of the robot controller, and has a portable teaching pendant connected thereto, comprising:

a unit for fetching an image from a camera;

memory storing image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale, wherein:

said teaching pendant comprises a display unit and a unit used for manipulation for image processing and display of the converted image data; and

said display unit displays an image and indication for manipulation of image processing simultaneously, or allows a user to select either a switching mode or a superposition mode,

wherein the robot is designed independently of the robot controller.

b₂ 4. (ONCE AMENDED) An image processing apparatus for a robot which is built in a robot controller, comprising:

a unit for fetching an image from a camera;

memory which stores image data from the camera or intermediate image data obtained in a stage of image processing; and

a unit for converting image data from the camera, the image data from the camera stored in the memory, or intermediate image data into a gray scale or a color scale, wherein:

a portable teaching pendant is connected to said robot controller through a cable; and

said teaching pendant comprises a unit for generating or editing a robot program, a unit for operating the robot, and a display unit, and can display on the display unit an image converted into the gray scale, and comprises a unit used for manipulation for image processing; and

said display unit displays, indication for generating or editing of the robot a program and indication for manipulation of image processing, together with an image simultaneously, or allows a user to select either a switching mode or a superposition mode.

BB sub DI 6. (TWICE AMENDED) The apparatus according to claim 1, wherein a part of the operation unit of the teaching pendant is configured by a touch panel.

B4 sub DI 8. (NEW) A method, comprising:
fetching an image from a camera;
storing image data from the camera or intermediate image data obtained in a stage of image processing; and
converting image data from the camera, the image data from the camera stored in the memory, or the intermediate image data into a gray scale or a color scale; and
displaying converted image data on a teaching pendant,
wherein said displaying displays the image data and indication for manipulation for image processing simultaneously, or allows a user to enter a switching mode or a superposition mode.

9. (NEW) An apparatus, comprising:
a image processor receiving an image from a camera;
a robot control unit controlling a robot; and
a portable teaching pendant displaying the image and allowing a user to control the robot using the robot control unit.

10. (NEW) A method, comprising:
receiving an image from a camera; and
displaying the image on a portable teaching pendant; and
controlling the robot using the portable teaching pendant.

B4 sub DI 11. (NEW) The apparatus according to claim 1, further comprising:
a unit for displaying and superposing geometric graphics on the image displayed on the display unit in accordance with the operation procedure of image processing and specifying an image processing with respect to the image.

12. (NEW) The apparatus according to claim 2, wherein a part of the operation unit of the teaching pendant is configured by a touch panel.